

REMARKS

Claims 1, 3, 4, 6, 7, 9-11, 13, 14, 16, 17, 19 and 21-26 were pending in this Application. Claim 1 has been amended. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure as, for example, the depicted embodiments and related discussion thereof in the written description of the specification. Applicant submits that the present Amendment does not generate any new matter issue. Entry of the present Amendment is respectfully solicited. It is believed that this response places this case in condition for allowance. Hence, prompt favorable reconsideration of this case is solicited.

Claims 1, 3, 4, 6, 7, 9-11, 13, 14, 16, 17, 19 and 21-26 were rejected under 35 U.S.C. § 103 for obviousness as evidenced by McCullough (U.S. Pat. No. 5,518,836, hereinafter "McCullough") in view of Taniguchi et al. (U.S. Pat. No. 6,083,638, hereinafter "Taniguchi") or Taniguchi et al. (JP 10-289723). It is noted that U.S. Pat. No. 6,083,638 is the U.S. equivalent to JP 10-289723. Applicant traverses the rejection.

The Examiner is requested to clarify the statement concerning the previous rejections in the Office action dated September 7, 2006, beginning at the bottom of page 2 and ending at the second line of page 3. It is not apparent how the Examiner can maintain rejections under 35 U.S.C. §§ 102 and 103 predicated upon McCullough alone, since the Examiner concedes at page 3 of the current Office action that McCullough does not teach a gas diffusion layer processed with a fluoro-resin. Applicant assumes for the purpose of this response that the sole rejection of record is the obviousness rejection predicated upon McCullough in view of Taniguchi or Taniguchi et al. (JP 10-289723). Clarification by the Examiner is requested.

Independent claim 1, as amended, describes a fuel cell including an electrolyte membrane; and a first electrode and a second electrode provided on the electrolyte membrane.

Gas is supplied from the surfaces of the first electrode and the second electrode opposite to the electrolyte membrane toward the electrolyte membrane. At least one of the first electrode and said second electrode is provided with a gas diffusion layer including a modified cross-sectioned carbon fiber having a recess in a cross-sectional shape thereof.

The fuel cell according to claim 1 of the subject application achieves improvement in diffusibility of supplied gas and in water retention capability by configuring the gas diffusion layer to include a modified cross-sectioned carbon fiber having a recess. The present amendment to claim 1 makes it clear that the modified cross-sectioned carbon fiber is used in the gas diffusion layer of the fuel cell. No such structure is neither disclosed nor remotely suggested in McCullough.

McCullough discloses a carbon fiber having a non-circular cross section. However, the carbon fiber is used to increase the surface area of the current collector in the secondary electrical energy storage device. The reference neither discloses nor fairly suggests the use of a modified cross-sectioned carbon fiber in the gas diffusion layer of the fuel cell, as required by claim 1 of the present application.

Moreover, none the secondary references to Taniguchi or Taniguchi (JP 10-289723) do not cure the argued deficiencies of McCullough. Thus, even if the applied references are combined as suggested by the Examiner, and Applicant does not agree that the requisite realistic motivation has been established, the claimed subject matter will not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

Based upon the foregoing it should be apparent that the imposed rejections have been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited. If there are any outstanding issues which might be resolved

**Application No.: 10/724,606**

by an interview or an Examiner's amendment, the Examiner is invited to call Applicant's representative at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Brian K. Seidleck

Registration No. 51,321

600 13<sup>th</sup> Street, N.W.  
Washington, DC 20005-3096  
Phone: 202.756.8000 BKS:idw  
Facsimile: 202.756.8087  
**Date: May 24, 2007**

**Please recognize our Customer No. 20277  
as our correspondence address.**